REMARKS

The examiner has objected to informalities in the claims. These claims have now been corrected.

The examiner has rejected Claims 1-8 under 35 U.S.C. §102 as being anticipated by H.D. Sandstone.

The examiner has taken the position that the well drilling apparatus of Sandstone shows the ground drilling tool of the present invention. Applicant respectfully submits that the two drilling tools are, in fact, very different. Applicant's ground drilling tool is designed to be coupled to a rotating length of drilling pipe. The rotating drilling pipe rotates the ground drilling tool. The rotational movement of the ground drilling tool drill cutting bit cuts a bore in the ground through its rotational movement. The rotational movement of the ground drilling tool back bit also rotatably cuts through debris which has fallen into the bore.

The apparatus of Sandstone is not a rotatable drill at all. The Sandstone apparatus is a device which simply pounds a hole into the ground through shear vertical movement and force of the apparatus. The hammer of Sandstone "is lifted by the cable 42 through suitable and well-known actuating machinery, not shown, upon the surface of the ground and dropped to strike with all of the force of its gravity upon the drill-head 2 and thus by repeated blows to drive the drill through the rock or other subterranean formations." (See Page 2, Col. 1, lines 34-42).

Similarly, the apparatus of Sandstone simply pounds through fallen debris within the bore through shear vertical movement of the hammer/apparatus. The patent describes the operation as "[I]n the event that a cave-in or other obstruction above the cap 1 is met the cable may be alternately lowered and jerked upward to cause the hammer to strike against the valve-base repeatedly whereupon the cap 1 will serve as a spear-head to penetrate the

obstacle under the upward blows of the hammer aided by the cutting-bits 20 formed thereon. (Page 2, Col. 2, lines 90-98).

Obviously, the vertical pounding of the Sandstone apparatus is very different from the rotational actuation of the present invention. In the present invention, the rotational movement is achieved through the rotational movement of the drilling pipe recited in Claim 1. The Sandstone patent does not include a rotating drilling pipe. Furthermore, the Sandstone apparatus cannot be adapted to include a rotating drilling pipe as the inclusion of a rotating drilling pipe would defeat the manner in which the Sandstone apparatus works (through vertical pounding). Furthermore, the Sandstone apparatus operates through a vertically reciprocating cable, the inclusion of the drilling pipe would effectively prevent the use of such a reciprocating cable. As such, the Sandstone apparatus cannot be modified as suggested by the examiner.

In addition to the Sandstone apparatus not being capable of being modified, the Sandstone patent actually teaches away from Applicant's invention. The Sandstone patent teaches of drilling through vertical pounding of a drill bit. The Applicant's invention teaches of drilling through rotation of a drill bit, not vertical pounding. These are two very distinct and different techniques in drilling.

Applicant's claim 1 has also been amended to include the recitation of a back bit having cutting teeth configured to rotatably cut through ground debris as the back bit is rotated. The teeth 20 of Sandstone conversely are designed to vertically chisel through the earth, so that the hammer may "spear-head" through the debris. Obviously, the teeth of Sandstone are not designed or configured to rotatable cut as the Sandstone apparatus is never rotated. As the Sandstone teeth are not configured in the manner described in Applicant's claim 1, the Sandstone patent does not anticipate Applicant's claimed invention.

Applicant's claim 1 has also been amended to recited a rotatable ground tool which is coupled to a rotatable drilling pipe. The hammer is specifically recited as having an upper end adapted to be coupled to the length of drilling pipe. The Sandstone patent does not show these features and therefore does not anticipate Applicant's claimed invention.

Applicant submits that independent claims 3 and 6 also include the rotational limitation of the drilling device and the rotationally configured cutting teeth or cutting means. As such, the argument previously submitted with regard to claim 1 applies equally to claims 3 and 6.

It is believed that the application is in condition for allowance. An early notice to such effect is accordingly solicited.

Respectfully submitted,

Dorian B. Kennedy
Registration No. 38,840

BAKER DONELSON BEARMAN CALDWELL & BERKOWITZ
Suite 3100
Six Concourse Parkway
Atlanta, Georgia 30328
(678) 406-8705

Docket No.: 2171164-000001